

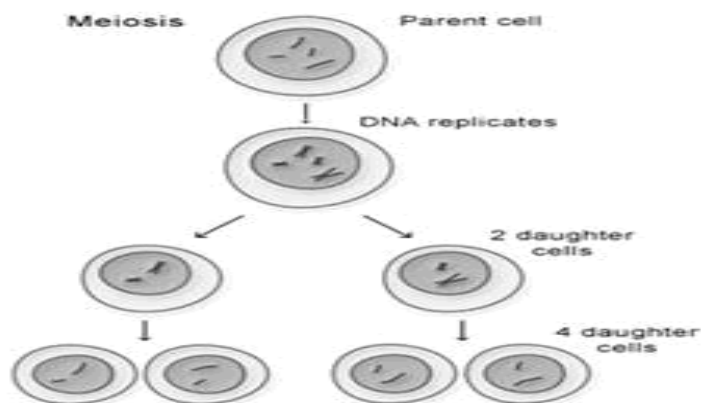
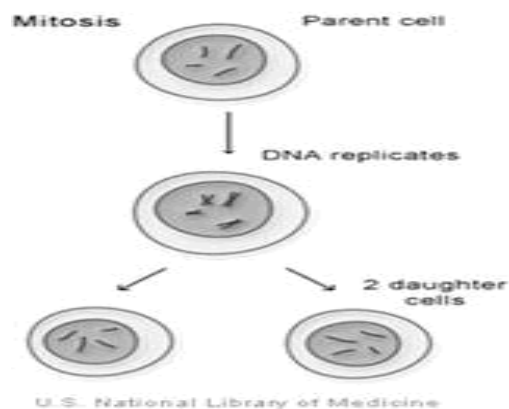
Key Idea 4/Standard 4 Living Environment Reproduction and Development

_____ --- is not necessary for the individual but is needed
for the continuation of the species

In _____ reproduction all the genetic information comes from one parent. The
production of identical genetic copies is called _____.

_____ reproduction involves two parents. The offspring have a
mixture of genetic material with half coming from each _____. This process is
called _____ and provides for _____
better suiting sexually reproduced offspring for survival.

Comparison of Mitosis and Meiosis		
Characteristic	Mitosis	Meiosis
Number of cell divisions		
Number of cells formed		
Genetic variation		
Types of cells formed		
Chromosome number of cells formed compared to the parent		



The egg or sperm contain _____ of the genetic information of the offspring. The _____ is formed by the union of egg and sperm and has the _____ chromosome number.

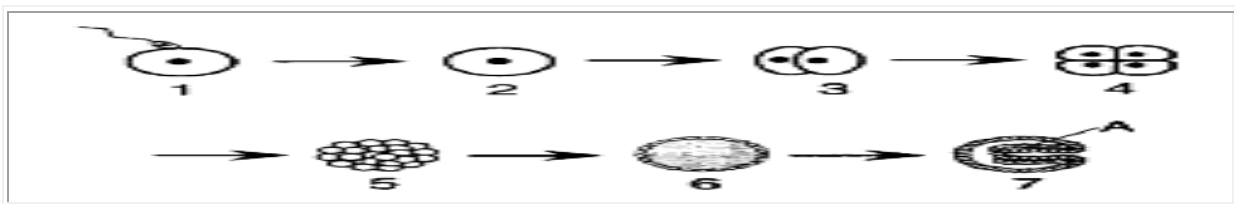
The processes of _____ and _____ restore the chromosome number in the offspring formed by sexual reproduction.



n (_____) + n (_____) \rightarrow $2n$ (_____)

Development of the single celled zygote into a multicellular organism occurs by a cell division process called _____.

_____ -- means to develop the specialized cells, tissues and organs of a living thing which have specific functions.



Use the diagram above to answer the following questions.

- 1.) What process is occurring at number one? _____
- 2.) What is cell two called and what is its chromosome number?

- 3.) The cell divisions following stage # 2 represent what process? _____
- 4.) The stage at number 7 (called a gastrula) is developing cells and tissues with specific functions. What is this process called?

- 5.) The cells of the embryo develop into different organs with different function because different _____ in these cells are turned _____ even though all non-sex cells in the fetus have identical DNA.


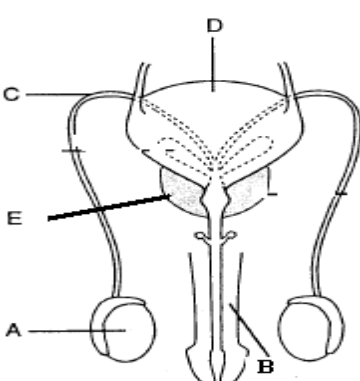
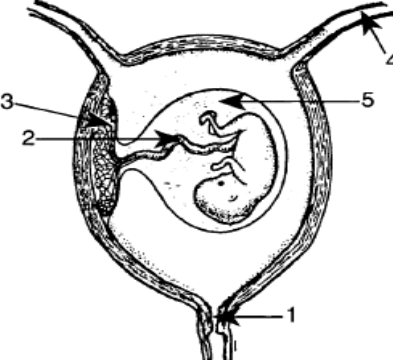
_____ -- stimulates the development of male secondary sex characteristics

_____ -- stimulates the development of female secondary sex characteristics and initiates the thickening of the uterine lining

_____ -- is produced by the corpus luteum in the empty follicle of the ovary and maintains the thickness of the uterus lining in case a _____ occurs

What is the function of the mammary glands? _____

Label each structure in the diagrams below and state their function.

 <p>A diagram of the female reproductive system. Label G points to the ovary, H to the fallopian tube, I to the uterus, J to the vagina, and K to the vulva.</p>	<p>g.)</p> <p>h.)</p> <p>i.)</p> <p>j.)</p> <p>k.)</p>
 <p>A diagram of the female reproductive system. Label A points to the ovary, B to the vagina, C to the fallopian tube, D to the uterus, and E to the cervix.</p>	<p>a.</p> <p>b.</p> <p>c.</p> <p>d.</p> <p>e.</p>
 <p>A diagram of a fetus in the uterus. Label 1 points to the cervix, 2 to the placenta, 3 to the umbilical cord, 4 to the fallopian tube, and 5 to the uterus.</p>	<p>1 =</p> <p>2 =</p> <p>3 =</p> <p>4 =</p> <p>5 =</p>

List four environmental factors which adversely influence development and explain how they adversely influence this development.

Why is the fetus most vulnerable to the effects of drugs during the first three months of pregnancy?

Provide a specific example of an infection in the Mother threatening the development of the fetus.

Explain how improper nutrition in the Mother could affect the fetus.

Reproductive Technologies

What is an amnioscentesis and why might this be performed?

What is in vitro fertilization and why might this be done?
